Competitive and Sustainable Port Management as the key to Competitiveness

19 November 2018
Guatemala City, Guatemala

Robert West
Bob.West@Duaga.com
+1 617 309 0521
27 Years of industry experience...

Specialized consulting for infrastructure with an emphasis in ports and harbors.

Processing Big Data to provide international trade business intelligence to increase your market share, with two successful products, DuPort Data for ports DuTrade Data for enterprises.

Outsourcing of labor intensive engineering services at hourly rates 45% - 65% lower than U.S commercial rates.
Buenaventura Challenge

Transshipment

731,000 TEUs

60,000 TEUs
Buenaventura Project

Aerial reconnaissance with Drones for port planning and design
THE WORLD – Is there growth out there?

WHERE ARE THE WEAK SPOTS & UNCERTAINTIES?

COMPETITION STRATEGIES
The world outlook is . . .

Strong & steady, for the short term

<table>
<thead>
<tr>
<th>Real GDP (%)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.2</td>
<td>3.8</td>
<td>3.7</td>
<td>3.7</td>
<td>?</td>
</tr>
</tbody>
</table>

Inflation: Not an issue in general
Europe: More stable, but still a museum
China: Continued strength, but much slower
USA: 2.9% now, but ??????

Source: IMF October 2018 World Economic Outlook
In the short term, the economic outlooks are fairly positive – some optimism

<table>
<thead>
<tr>
<th>Country</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>2.0%</td>
<td>1.8%</td>
<td>3.0%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Chile</td>
<td>1.7%</td>
<td>1.5%</td>
<td>3.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>4.2%</td>
<td>3.2%</td>
<td>3.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Dom Rep</td>
<td>6.6%</td>
<td>4.6%</td>
<td>5.2%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.1%</td>
<td>2.1%</td>
<td>2.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Panamá</td>
<td>5.7%</td>
<td>5.5%</td>
<td>4.6%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Peru</td>
<td>3.9%</td>
<td>2.7%</td>
<td>3.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>USA</td>
<td>1.6%</td>
<td>2.1%</td>
<td>2.9%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Argentina</td>
<td>-1.8%</td>
<td>+2.9%</td>
<td>+2.0%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.5%</td>
<td>+1.0%</td>
<td>+1.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>4.7%</td>
<td>4.9%</td>
<td>-3.8%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>-16.5%</td>
<td>-14.0%</td>
<td>-15.0%</td>
<td>-6.7%</td>
</tr>
</tbody>
</table>

Reasons for optimism

• **World TEU trade** growth in 2018 will be 6.0%
  • Drewry predicts 4.6%

• **Latin America**
  • Real GDP = 2.3% in 2018
  • TEU trade = **8.1%**

• **Caribbean and Central America economic outlook**
  • Caribbean = 3.5% in 2018, then 3.4% in 2019
  • Central America = 2.0% in 2018, but 3.9% in 2019
TEU trade will continue to grow – 2018 will see very strong growth

5.5% = long term potential globally

- Container Trade: +1.0%
- Total Trade: +1.5%
- Real GDP: +2.3%
- World Population: +0.7%

But \( \Delta \text{TEU}/\Delta \text{GDP} \neq 3X \)

A port’s ratio depends on its size, location, market share, willingness to invest

This year’s multiple will be 2.0

Sources: DUAGA
http://www.census.gov/population/international/data/idb/worldpopgraph.php
THE WORLD – Is there growth out there?  YES

WHERE ARE THE WEAK SPOTS & UNCERTAINTIES?

COMPETITION STRATEGIES
### Big picture – headed to 2020

Second-longest upturn in economic growth (USA) in history

Recession pre-conditions are always the same

<table>
<thead>
<tr>
<th>THE USUAL SCENARIO</th>
<th>THE PUSH OFF THE CLIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low unemployment → Higher Wages</td>
<td><strong>Tariffs against China - &gt;$200 billion</strong></td>
</tr>
<tr>
<td>Fed hikes rates – too fast</td>
<td><strong>And +$267 billion more</strong></td>
</tr>
<tr>
<td>Tax cuts → higher interest rates</td>
<td><strong>Another tariff hike against China</strong></td>
</tr>
<tr>
<td>Consumers cool off because rates are too high</td>
<td><strong>Will cover ALL products</strong></td>
</tr>
<tr>
<td>Profits fall because wages have gone up</td>
<td><strong>Tariffs on steel and aluminum</strong></td>
</tr>
<tr>
<td>P/E ratios get too high, and investors sell stocks</td>
<td></td>
</tr>
<tr>
<td>Consumer wealth drops so spending falls</td>
<td></td>
</tr>
</tbody>
</table>
Dark clouds of a trade battle (war)

- Cost to the world economy could be **$430 billion**
- US-China tariffs could hit 4 million TEUs of trade
  - Mainly industrial products + maybe consumer goods too
- For the EU, Asia now looks like a safer bet than USA
- For Central America, a ‘pivot’ to Asia may be a smart move

*Ferdinando Giugliano, Bloomberg, July 2018*
China may also have a ‘recession’

- 5 months of contraction thru October 2018
- In small and medium size companies - mfg & services
- Manufacturing sentiment barely >50

3rd quarter GDP was the slowest in 10 years

What if China sells its US debt in retaliation to tariffs?

Source: The Loadstar
Recession will hit the shipping lines – not prepared

New Capacity being added to the containership fleet

<table>
<thead>
<tr>
<th>Year</th>
<th>Fleet Capacity</th>
<th>New Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>21,500,000</td>
<td>5.7%</td>
</tr>
<tr>
<td>2018</td>
<td>22,000,000</td>
<td>6.1%</td>
</tr>
<tr>
<td>2019</td>
<td>22,500,000</td>
<td>4.8%</td>
</tr>
<tr>
<td>2020</td>
<td>23,000,000</td>
<td>4.3%</td>
</tr>
</tbody>
</table>
Shipping lines just can’t stop

- HMM intends to order 10 new ships, all >20,000 TEU
- CMA CGM has ordered 10 new LNG-fueled ships, each 22,000 TEU

**Good News – 14 November 2018**
Maersk CEO Søren Skou announced that in 2019 the world’s largest shipping line will NOT make any acquisitions or order any new ships

**The IMO might help the environment AND freight rates**
GHG standards might be met by enforcing slower speeds

Source: Loadstar, Oct 31, 2018
Maersk has 8 new ships on order over 18,000 TEUs each

Alphliner Newsletter 45 2016
How big is big?

New shoes for:
- Guatemala
- El Salvador
- Honduras
- Nicaragua
- Costa Rica
- Panama
- Colombia
- ½ Venezuela

COSCO SHIPPING just launched *Nebula* at 21,237 TEU

18,000 TEU
In the last 3 years, the Pacific Alliance has accomplished more than the other free-trade efforts in the last 30 years.

Will the US join?
Probably not!
Guatemala is an observer

Population = 200 million
Income/capita = $10,000
35% of LAM GDP
8th largest economy in the world

“… emerging as one of the most dynamic economic regions in the world” - IDB
The “pivot” to Asia is already underway

Trade with Asia is continuing in 2018, but could slow down in 2019
Signs of life on the Transpacific!

Transpacific Annual Container Growth

Source: JOC Container Outlook

And dry bulk rates are UP 10% in 2018 first half
We are starting to see upsizing on the Transpacific

- Used to be just Asia-Europe
- Effect of the Canal expansion
  - Maersk expanding its service
    - Direct calls to Chile
- Buenaventura has received a 13,000 TEU ship (MSC)

Source: Alphaliner, May 2016, Clarksons Research
Who would have thought?

Top 7 shipping lines control almost 75% of the TEU shipping capacity.
Looks like an oligopoly

<table>
<thead>
<tr>
<th>Alliance</th>
<th>Companies</th>
<th>Global Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2M</td>
<td>Maersk, MSC</td>
<td>33.3%</td>
</tr>
<tr>
<td>OCEAN</td>
<td>Evergreen, OOCL, CMA CGM, COSCON</td>
<td>25.6%</td>
</tr>
<tr>
<td></td>
<td>NYK, MOL, K-Line, Hapag-Lloyd (UASC), Yangming, Hanjin</td>
<td>15.7%</td>
</tr>
</tbody>
</table>

These 3 alliances serve **74.6%** of the market

Source: Alphaliner, DUAGA
Big ships and alliances are not all good

- Shippers have fewer choices of shipping lines
- Rates are less competitive
- Route options might involve more transshipment
- Shippers are pushed to pay more and more, even though there is plenty of shipping capacity
China-backed ports

China’s global port ownership clusters around key trade routes and maritime chokepoints

Ownership or investment in foreign ports since 1994
- Mainland Chinese companies
- Hong Kong (Hutchison)

Source: The New York Times
Another difficulty – Meeting the IMO 2020 Sulphur targets

- 1 January 2020 dead line
- 0.5% target – down from 3.5%
- LSFO will rise in price
- LNG is a great option: cheap, but conversion is expensive
- Scrubbers are a temporary solution only
- Only 252 ships comply right now – 4900 more to go!
  Just 121 use LNG now
- Bunker surcharges are not sticking, so who will pay?
- CMA CGM has ordered 9 new LNG-powered ships, at 22,000 TEU

The age of LNG has arrived

Source: industry news, IMO, Alphaliner
New port capacity in CA+DR

Central America = 25 ports
Pacific 11
Caribbean 14

CORTES
+650,000
1.8 million TEUs

MOIN - open
+1.5 million TEUs

QUETZAL - APMT
+340,000 TEUs

CAUCEDO
+210,000
1.65 million TEUs

BLUEFIELDS - new
+75,000 TEUs

RODMAN
+1.550,000 TEUs
2 million

New COLON
+2.5 million TEUs

Over 7.1 million TEU of new capacity planned, under development, or operational
The Mega Ships bring higher risks for shippers

• Shippers used to spread their risk
  • Multiple ships
  • Multiple shipping lines
  • Multiple ports

• Now, the risks are greater
  • FEWER lines, ships, and ports (but bigger ones)
THE WORLD – Is there growth out there?

WHERE ARE THE WEAK SPOTS & UNCERTAINTIES?

COMPETITION STRATEGIES
How to compete?

• Old Way
  • Tariffs, long-term contracts, berth capacity, inland connections (rail, road), container dwell times

• NOW – The Green Port
  • Water – Cartagena
  • Bilge disposal – cleaner technologies
  • Sulphur disposal – scrubbers
  • Vessel tracking systems – reduce congestion
  • Eco-discounts
Decisions when things are uncertain

Carriers

The orderbook has nearly 3 million TEUs of new capacity

- Stop adding capacity!
- Invest in ports – expand capacity and productivity
- Invest in inland logistics

What will happen?

Excess capacity will shrink to match demand
Freight rates will increase to help pay for higher bunker costs and new fuel requirements (2020)
Market shares will remain at today’s levels, if everyone complies

Source: Alphaliner Monthly Monitor June 2018
Decisions when things are uncertain

Ports

Don’t be afraid to invest because trade volumes will grow, long-term
Attract the private sector through PPPs for money, credibility, and efficiency
Get on the LNG bandwagon if you are in a good location

What will happen?
Competing will become more difficult, but there can be “niche winners”

LNG as a marine fuel can bring the cargo to your port
Conclusions – For us

- Solid sea trade growth 2018
- 2019 – economic and trade deterioration – be cautious
- 2020 – recession underway – start planning now
- Latin America – pivot more to Asia, but don’t forget the USA
- Compete successfully by being a GREEN port